

A NEW EASTERN NEARCTIC
HEMERODROMIA (DIPTERA: EMPIDIDAE)¹

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ABSTRACT: *Hemerodromia chillcotti* n. sp. is described from Quebec and North Carolina.

DESCRIPTORS: aquatic insect, Diptera, Empididae, Hemerodrominae.

During an investigation of stream fauna in the Laurentian Highlands north of Montreal, Quebec, an undescribed species of *Hemerodromia* was encountered. Specimens of the same species were later found in the Canadian National Collection of Insects (CNCI) in Ottawa; these had been labelled "n. sp. near *melanosoma*" by the late Dr. J.G. Chillcott. The species is described below and named in memory of Dr. Chillcott.

The holotype and the allotype (in alcohol) are deposited in the insect collection of the Departement des Sciences Biologiques of the Universite de Montreal (UM); paratypes are in the same collection and the CNCI.

Hemerodromia chillcotti, new species

Total length 2.5-3mm. The species agrees in most respects with previous descriptions of *Hemerodromia* spp. (cf. Collin 1961) particularly with regard to general morphology, body setation, and wing venation. The distinguishing characters are as follows:

Face linear; eyes nearly contiguous on face separated by a distance of less than one ommatidium. Front legs raptorial; femora bearing on their ventral margin two rows of long yellow spines between which are two rows of small black knobs; basal spine somewhat larger than the others but not borne on a basal tubercule; tibiae armed with a dark subterminal spine. Wing venation typical; second vein ending opposite end of fifth vein and fork of fourth vein.

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General colour of body dark; head black subshining; underside of head, antennae and mouthparts creamy white. Thorax dark brown polished, pleura lighter; wing veins brown; halteres white; legs whitish without any marked darkening at joints. First abdominal segment white; terga of segments 2-6 dark brown with some lighter mottlings laterally; segments 7 and 8 white; genital segments dark brown.

Male genitalia: general aspect of the hypopygium typical of the genus (Fig. 1). Upper lamellae fused anteriorly and prolonged distally by two flat lobes, one horizontal (Fig. 6), the other vertical (Figs. 1 & 2). Side lamellae irregularly oval bearing a distal lobe (Fig. 3) which fits in between the upper lamellae. Penis of the usual type (Fig. 4). Fused ventral lamellae forming the main structure of the hypopygium and bearing small dorsal appendages (Fig. 5).

Female genitalia: ovipositor well chitinized, long and pointed (Fig. 7).

Immature stages: unknown.

Holotype ♂: stream at Station de Biologie (Universite de Montreal), St-Hippolyte de Kilkenny, comte de Terrebonne, Quebec, July 20th 1972.

Allotype ♀: same data.

Paratypes: QUEBEC, same locality, 36♂, 146♀, June 22 - August 14, 1972 (UM); Wakefield, 2♂, 4♀, July 9, 1946, G.F. Shewell (CNCI). NORTH CAROLINA, Wayah Bald, 4100', ♂, July 28, 1947, W.R. Richards (CNCI).

Among North American species, *H. chillcotti* resembles most *H. melanosoma* Melander, and it will key out to this species in Melander's (1947) key to the Central and North American species. The main distinguishing features are summarized in the following couplet:

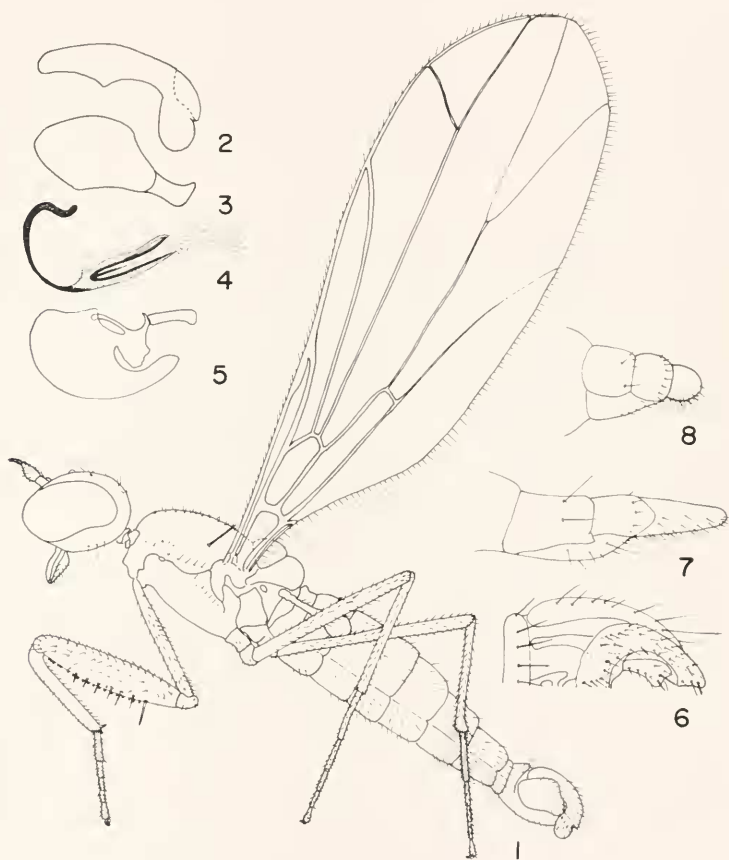
Seventh abdominal tergum brownish (especially in the female where the venter is also darkened); upper lamellae of male hypopygium linear in side view, without a downturned lobe (Melander 1947, Fig. 12); female ovipositor short and rounded (Fig. 8) *H. melanosoma* Melander
 Seventh abdominal segment pale; upper lamellae with a conspicuous downturned lobe (Fig. 2); ovipositor long and pointed (Fig. 7). *H. chillcotti* n. sp.

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LITERATURE CITED

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 Melander, A.L. 1947. Synopsis of the Hemerodromiinae (Diptera, Empididae). J. New York Ent. Soc. 55: 237-273.



Figs. 1-7. *Hemerodromia chillcotti* new species.

Fig. 1. General aspect of male.

Fig. 2. Upper lamella of male genitalia.

Fig. 3. Side lamella of same.

Fig. 4. Penis.

Fig. 5. Ventral lamella.

Fig. 6. Top view of male hypopygium (right half).

Fig. 7. Female ovipositor (side view).

Fig. 8 *Hemerodromia melanosoma*, female ovipositor.